SOCIAL SECURITY

The Commissioner

September 5, 2012

The Honorable Sam Johnson
Chairman, Subcommittee on Social Security
Committee on Ways and Means
House of Representatives
Washington, D.C. 20515

Dear Mr. Chairman:

Thank you for your June 15, 2012 letter requesting additional information in order to complete the record for the hearing on the state of our information technology. Enclosed you will find the answers to questions that you sent us from you and Ranking Member Xavier Becerra.

I hope this information is helpful. If I may be of further assistance, please do not hesitate to contact me, or your staff may contact Scott Frey, our Deputy Commissioner for Legislation and Congressional Affairs, at (202) 358-6030 who is available to meet with your staff if requested.

I am also sending this information to Ranking Member Xavier Becerra.

Sincerely,

Michael J. Astrue

Enclosure

1. **The Information Resources Management plan identifies 10 "domains" but does not explain how each aligns specifically with the strategic plan. How do each of these domains specifically align with goals in the Agency Strategic Plan?**

   When considering potential information technology (IT) projects, we group proposals into portfolios that align to our Agency Strategic Plan (ASP) and include strategic alignment as a factor in our evaluation. In our Information Resources Management (IRM) plan, http://www.ssa.gov/irm/IRM_2012.pdf, we categorize our IT infrastructure that supports these projects into 10 domains, which include Data Management, Software/Applications, Business Intelligence, and Computing Platforms. While individual IT projects may align with a specific goal, these domains are foundational elements that support all ASP goals.

2. **Recently, Social Security launched the new online version of the Social Security Statement, as part of a new "My SSA" portal. The Statement is an important financial planning tool. Please explain more about how this portal works and how it relates to other online services now and in the future. Will the My SSA site eventually allow citizens to manage their business with Social Security in real time electronically, as recommended by the Social Security Advisory Board? How many people have viewed their Statement so far and what impact, if any, did this traffic have on your website?**

   To improve service and provide relief to our field offices, we have offered an ever-growing number of online services. MySSA's additional security requirements allow the public to do even more SSA business electronically because we can give information to the user instead of just receiving it. MySSA users must provide personal information and answer questions that only they are likely to know. Authenticated users are required to create a username and password that serve as their access to MySSA in the future. We decided to make the Statement our first MySSA application given its interest to so many Americans. So far, more than a million people have created an account to view their Statement. Resources permitting, in fiscal year 2013, we plan to expand MySSA services to allow users to change their address and direct deposit information and receive benefit verifications.

3. **Dr. Scherlis discussed the importance of having a baseline inventory of existing systems, to determine capabilities of current systems and identify potential vulnerabilities. Does Social Security have such a baseline assessment? If so, please provide a copy for the record. If not, why not?**

   We do maintain an inventory of our applications to document the capabilities of our current systems and help us identify potential vulnerabilities. We have attached a list with a short description of each application in our baseline inventory. For your information, we are sending a copy of our Application Information Report separately for security reasons.

4. **In a report requested by Social Security, the National Research Council of the National Academies assembled a committee of experts to perform a strategic assessment of Social Security's electronic services. This excellent report was published in 2007. Would you provide specific details regarding the steps Social Security has taken to implement each recommendation?**

   Since the National Research Council published its report in 2007, we have overhauled our electronic services, considering the recommendations in the report. First, we released our significantly improved Retirement Estimator, an easy-to-use benefit calculator that helps millions of people plan for retirement. We also completely redesigned our online benefit application, iClaim. Since we released iClaim in December 2008, we have increased the percentage of online benefit applications from single digits in most years prior to iClaim to 43 percent so far this year. iClaim has been essential in helping us keep pace with the significant increase in benefit applications due to the recession.

   Using public and employee feedback, lessons learned, and benchmarking with other organizations, we continue to improve and expand our online offerings, including the release of the first interactive online Spanish applications in the Federal government. In May, we released on our online Social Security Statement, the first application to use our MySSA portal. Depending on the availability of resources, we plan to expand the personalized services we offer.

   Public satisfaction scores demonstrate our success in overhauling our electronic services over the last five years. We currently have the three highest-rated electronic services in the Federal government—and five of the top six—as rated by the American Customer Satisfaction Index (ACSI), even outscoring the top private sector electronic services, Amazon and Google.

   We outline below how we addressed each of the nine specific recommendations from the National Research Council.

Recommendation 1:

The SSA should make an unambiguous, strategic commitment to electronic services as part of its long-term service delivery strategy, placing a central emphasis on electronic services that encompass timely and up-to-date information for users, partners, and beneficiaries.

Response to Recommendation 1:

We are committed to expanding and enhancing the quality and quantity of available electronic services. In FY 2011, we processed over 15 million personalized online transactions, reducing stress on our offices as we struggle to keep up with demand. Our May 2012 IRM plan reiterates our commitment to expand and enhance our online services, and it describes how our IT projects help us accomplish this goal. Furthermore, we are currently developing a Service Delivery Plan that will describe how we will use our resources to deliver services over the next four years and beyond, including how we will use and improve electronic tools.

Recommendation 2:

The SSA should carefully consider the ways in which the experiences and approaches of large-scale financial institutions— including state-of-the-practice electronic information and service delivery, metrics-guided improvement, and process transformation, among other approaches and solutions—might be relevant to the kinds of services that the agency is providing or may provide in the future.

Response to Recommendation 2:

We agree that we can learn from other organizations. In fact, we benchmarked with financial institutions, healthcare organizations, and other government agencies to implement best practices in authentication as we developed MySSA. We continue to collect information and advice from the financial community, other government agencies, and private IT research companies, such as Forrester, Gartner, the Info-Tech Research Group, the Corporate Executive Board, and the 451 Group. These collaborations, including lessons from the financial industry, provide valuable insight as we research and develop new service options, including developing mobile services.

Recommendation 3:

In order to move to the second phase of electronic services maturity, the SSA should create a focal point responsible for developing and managing electronic information and service delivery— including components such as Web content, online transactions, user interfaces, research, database systems and other key enabling technologies, and other facets of electronic service delivery that are currently dispersed throughout the SSA. This focal point should have sufficient resources to take on organization-wide responsibility for online services and should report directly to the SSA Commissioner or to a Deputy Commissioner.

Response to Recommendation 3:

The Office of Systems Electronic Services is our focal point for developing and managing electronic services. The office reports directly to the Deputy Commissioner for Systems and manages all aspects of our electronic service development and delivery. To support the efforts of this office, we have a cross-component eServices Governance Committee that oversees all activities related to our online services. This Committee has overseen the successful release of numerous online services, which routinely receive high customer satisfaction scores.

Recommendation 4:

As it makes decisions about future directions for its database technology, the SSA should give considerable weight to the implications of those decisions for the effectiveness and efficiency of current and future electronic service delivery and should be open to the introduction of new technologies.

Response to Recommendation 4:

We recognize the importance of defining a database architecture that uses newer technologies related to electronic services. We have made significant progress in replacing our databases that had used the Master Data Access Method (MADAM) with modern relational databases supported by IBM DB2 and Oracle, the industry-leading database management systems. We have converted three of our five master data files from MADAM to DB2 and will convert the fourth by the end of this year. We are currently planning to convert the fifth file. Our approach in migrating from MADAM to relational databases has allowed us to minimize the disruption to our offices during the conversion.

We are also making excellent progress in changing our computer code base that was dominated by older programming languages like COBOL and ALC to reflect a better balance of more modern code. Although we rely on older code, soon we will have more production computer programs written in JAVA language rather than COBOL. We will continue to take advantage of appropriate new technologies that can help us operate more efficiently and effectively.

Recommendation 5:

In continuing to develop its conversion strategy and long-term services strategy, the SSA should draw on a broad range of technical expertise—including but not limited to database software experts, software engineers, software security experts, financial services experts, large-scale commercial service providers, and systems architecture experts—and put systematic mechanisms in place so that it can hear and learn from outside advisers.

Response to Recommendation 5:

Please see our comments on Recommendation 2. We actively consult with independent technology and market research companies, such as Gartner and Forrester, to solicit independent and fact-based advice on existing and proposed technologies. We consult with IBM on database and emerging technologies to gain expertise related to industry standards and architectures. We use this expertise in our database conversion strategy. We also contract with Yevich, Lawson, and Associates on an annual basis to assist with our database conversion. This contract allows us to draw upon a broad range of technical expertise, including database development and conversions, software development, and systems capacity technologies.

Recommendation 6:

When evaluating new electronic service-delivery initiatives, the SSA should, when appropriate, seek to balance risks and rewards by recognizing such upside benefits from automation as cost reduction, fraud prevention, and customer satisfaction.

Response to Recommendation 6:

We carefully consider both risks and rewards as we evaluate new electronic service initiatives. We continue to implement our IT services incrementally. Our approach helps ensure that we realize value quickly and allows us to adapt to changing business and technology environments.

Recommendation 7:

The SSA should define and use metrics and measures to assess and improve its service delivery across all channels, including electronic services.

Response to Recommendation 7:

We communicate our metrics both internally and to the public in our Annual Performance Plan, www.socialsecurity.gov/budget/2012APP.pdf, and in our Performance and Accountability Reports, http://www.ssa.gov/finance/. We include performance measures related to our service, including several measures specific to our electronic services.

In addition to these metrics, we use ForeSee, a customer experience analytics firm founded at the University of Michigan's Ross School of Business, to help us gauge satisfaction with our electronic services. ForeSee administers the ACSI surveys to measure customer satisfaction with services. We use the survey data, which includes satisfaction scores and public comments, to improve our existing services and develop ideas for future services.

Recommendation 8:

The SSA should undertake to understand the identities, needs, and attitudes of its various user communities and should use that information to establish effective relationships and ongoing interactions with users, potential partners, and third parties. The SSA should explore partnering opportunities and identify the changes and initiatives that are necessary in order for it to enable appropriate interaction and cross-functionality with strategic partners and to support the exchange of data with other government agencies (both federal and state) while ensuring that appropriate security and privacy measures are in place.

Response to Recommendation 8:

Stakeholder input is critical to each stage of our eService development process. We routinely solicit public feedback through surveys, focus groups, and meetings with key external audiences. After we implement new services, we continue to engage our stakeholders by using feedback from ACSI surveys and conducting other surveys to improve our online services.

For example, input from users and external stakeholders was key to the success of two recent eService projects. We decided to offer our online services to the 35 million Americans who may prefer to conduct their business with us in Spanish. We gathered feedback from several Hispanic advocacy groups as we developed our Spanish language electronic services. These advocates provided valuable insight into how to best translate and design these services.

Before we implemented our new Internet authentication process for public access to our MySSA portal, we benchmarked with financial institutions, healthcare organizations and other government agencies to assess and implement best practices in authentication. We also conducted public focus group, tests, and surveys that helped us fine-tune usability and security. In addition, we sought the input and advice of numerous privacy experts and advocates for victims of identity theft and domestic violence. These discussions helped us design our authentication system with several features that provide additional protections for victims of domestic violence and identity theft.

With regard to the exchange of data with other Federal agencies, we have over 3,500 data exchanges with a variety of partners, including State and Federal benefit paying agencies. We routinely work with these agencies to ensure continued efficient and secure information exchanges.

Recommendation 9:

The SSA should embrace change as a constant. It should regularly evaluate emerging trends in such areas as technology (for example, database technologies) and business practices (for example, by learning from the experiences of financial institutions and moving toward the use of strategic partnerships for efficiency and effectiveness). It should also regularly evaluate the changing societal attitudes and expectations of its various user communities. The SSA should also institutionalize the formulation of strategies for addressing these trends.

Response to Recommendation 9:

We release new software and make extensive adjustments to our IT environment weekly. We continually evaluate trends in business practices and contract with private sector experts to gain insight into future technologies and customer support trends. As referenced earlier, we have learned valuable lessons from the experiences of the financial industry in adopting mobile technology. We will also continue to evaluate the expectations of our user communities. We already have in place numerous methods to gather input from the public, advocacy groups, and other third parties.

Our Compassionate Allowances and Quick Disability Determination processes are examples of how technology is helping us make faster and more accurate decisions. We continue to take advantage of Health IT, which has the ability to dramatically improve service.

We face a challenging budgetary environment and must make difficult choices between possible new investments. Therefore, we implement new technologies based on their business cases.

5. **In the Information Resources Management plan, Social Security's Hardy-Apfel Fellows program is touted as a way "to bring in IT talent from top graduate schools." How many Hardy-Apfel fellows have been hired and retained to date? Please provide the number hired in each year for the past 5 years, and the number from each hiring class currently working at Social Security. How do you recruit innovative technology experts and keep them?**

We began recruiting for the Hardy-Apfel IT Fellows program in 2008, and we have hired 17 participants to date. Hardy-Apfel is a small prestigious program selecting top IT talent to work on key Agency projects. The program is highly competitive, designed to recruit participants from Master's program universities that have top-ranked computer science programs. Recruitment efforts have successfully attracted 326 candidates. Of those candidates, 106 applied for the program.

Our recruiters attend universities career fairs and work directly with school career centers to inform qualified candidates about this program. Our nationwide recruitments efforts have included visits to:

Brown University
University of California Los Angeles
Georgia Institute of Technology
University of Maryland College Park
Massachusetts Institute of Technology
University of Texas at Austin
Carnegie Mellon University
Cornell University
Johns Hopkins University
Stanford University
University of Illinois at Urbana

Among the 17 Fellows hired, 14 remain in the agency. Consequently, the retention rate for the program is eighty-two percent. Below is a breakout of the number of Fellows recruited and retained:

- Recruitment year 2008-2009: retained 2 of the 4 hires.
- Recruitment year 2009-2010: retained 4 of the 5 hires.
- Recruitment year 2010-2011: retained all 3 hires.
- Recruitment year 2011-2012: retained all 5 hires.

We recruit and retain innovative technology experts by offering a flexible, high-level program in which the Hardy-Apfel Fellows can develop new fields of study or continue to pursue their current areas of interest. These Fellows realize that working at SSA gives them the opportunity to advance the information technology systems, programs, and policies of a large Government agency that touches the lives of nearly all Americans. They have the opportunity to work on key agency projects and to meet regularly with agency executives.

6. **In the Information Resources Management plan, the IT Skills Inventory is discussed. Is expertise regarding cloud computing and big data included in the IT Skills Inventory? If not, why not? If so, does Social Security have sufficient staff with these skills to meet its needs now and in the future? If not, how does Social Security plan to recruit individuals with these skills?**

   The technological aspects of cloud computing and big data are skill sets that our IT employees possess. We continue to train our IT staff to maintain and update their skills so they can address the changes in technology. We have not identified sets of new skills necessary to support cloud computing and big data that are separate and distinct from the IT skills already included in our IT Skills Inventory. To the extent that we identify the need for these core skill sets in the future, we will incorporate them into our IT Skills Inventory recruiting strategies and objectives. If the design and implementation of cloud and big data environments require highly specialized experience, we can engage consultants with that expertise to provide advice and train our existing staff.

7. **In recent years, the number of online services offered by Social Security has grown. What online services can the public expect from Social Security next? How do you decide what services to provide online? How long does it take to launch an online service?**

   Our next online service will provide real time access to the benefit verification. In fiscal year 2011, our front line employees manually processed 7.4 million requests for benefit verifications.

   During our IT planning process, we define and prioritize the IT initiatives necessary to accomplish our strategic goals and objectives. We consider many factors, such as our available resources, the expected service usage, effect on our local offices, improvement to the user experience and security, and overall return on investment. Every online service is unique. The time needed to launch a new service depends on its size, complexity, and the availability of adequate resources.

8. **Social Security has top scores on some of its online applications in terms of customer satisfaction. But the two disability-focused sites, the application for benefits and applications for appealing a disability denial, do not score as well. In fact, the appeals application site is the second lowest scoring of all Social Security sites. Why? What changes are being made to these sites to ensure those applying for disability benefits receive the same high quality online experience that retirees do?**

Our easy-to-use online application, iClaim, has been very successful. In FY 2009, we rolled out the first phase of iClaim, and we immediately saw a significant increase in Internet disability claims, even though we did not market the service to disability applicants. Our numbers continue to increase. In FY 2011, more than one million disability applicants (33 percent of the total) filed online, almost quadrupling the volume from the year before iClaim. To date in FY 2012, 38 percent of disability applicants filed online.

Last June, our Office of the Inspector General completed a review of the level of service provided to applicants filing for disability benefits using iClaim. This review, initiated at the request of Congress, found that 91 percent of survey respondents "…found their overall experience filing the iClaim (disability) application online to be excellent, very good, or good."

The complexity of the disability rules makes streamlining the online claim process more challenging, but we are making progress. In June we began capturing electronic signatures for medical authorization and allowing users to upload supporting files directly into our disability system. Over the next several years, we will be making other improvements depending on available funding.

We also used the ACSI customer satisfaction information for the Internet disability appeal (iAppeals) to help us identify areas for improvement. Earlier in FY 2012, we released an improved version of this application. Some of the changes included:

- providing tips on how to navigate the site;
- reducing the number of informational pages and placing key information behind links for easy access;
- clarifying instructional language;
- reducing the number of unnecessary screens;
- creating a new "Welcome Page" with a look and feel similar to our newer online applications.

We are currently evaluating recent ACSI survey results to further improve the iAppeals application.

9. **The Information Resources Management plan runs through fiscal year 2016. What types of planning is Social Security doing outside of the 5 year window? In his testimony, Dr. Scherlis recommended planning for potential changes to IT systems over five to ten years. Do you agree? If not, why not?**

   We base our IT guiding principles, which we describe in our IRM plan, on systematically modernizing our infrastructure using sound and viable technologies. Given the importance of our programs, we cannot afford to be captivated by the promise of new technologies before they are mature and cost effective to implement. Although we agree with Dr. Scherlis that IT strategic planning must be future looking, we believe that our 5-year planning horizon is appropriate. The unpredictability of our budget and the current annual budget planning and execution cycles make it difficult to plan beyond this length of time. We do, however, monitor emerging technologies.

10. **In his testimony, Dr. Scherlis discussed the potential of "big data" and described it as "computing techniques that enable rapid analysis and manipulation of vast quantities of data to turn it into actionable information." Is Social Security using this technology to better manage its programs? If not, why not? Are you planning to use it in the future?**

    In 2010, we began researching innovative architectural solutions to ensure the security and integrity of our rapidly expanding volume of data. As a result, we developed a proposal for a target architecture that enables the integrated capture, management, and analysis of events and large-scale data, or "big data." We refined this target architecture in 2011, and we are now using it as a strategic roadmap to identify, evaluate, and test potential technical solutions. In 2012, we are working with consultants to identify the strategies and data analytics that will leverage "big data" to enhance agency services.

11. **(From Mr. Johnson) For nearly a decade (FY2001-2011), Social Security stockpiled over $1 billion of its unspent appropriated funds in the Information Technology (IT) Fund. Congress had permitted Social Security to roll money into the fund for acquisition and maintenance of automated data processing and telecommunications hardware and software as well as support services and related contractual services. Social Security did not use the money in spite of appeals to Congress regarding its urgent IT needs. When the buildup of funds was discovered, Appropriators, on a bipartisan, bicameral basis, rescinded $275 million and required Social Security to draw down the fund. After the rescission, the IT fund had nearly $600 million remaining. Why did Social Security not use the IT fund to make timely maintenance and appropriate IT upgrades to protect the taxpayers' investment in the agency's IT system? Please provide specific details as to how IT funds have been spent since the $275 million was rescinded.**

These funds are a closely monitored, transparent part of our budget that we have used to help us handle increasing workloads. Our ability to transfer unobligated administrative funds to our Information Technology Systems (ITS) account is a funding mechanism Congress specifically authorized. We must justify to OMB any transfer of unobligated balances to the ITS account, and OMB must give us formal approval before we can transfer and spend any funds. Moreover, available ITS transfer funding factors into our annual budget request. During the budget process, we work with OMB to determine how much of our IT needs will be covered with funding we can transfer into the ITS account, thereby decreasing the amount of new funding we need to request in any given FY.

Most of our annual ITS funding is necessary for ongoing operational costs, such as our 800 number hardware and software and our online services. ITS transfer authority allows us to make technology improvements that help our employees work more efficiently. Our IT investments help us to achieve average annual employee productivity increases of about 4 percent in each of the last five years. They also help us maintain sufficient capacity to process and store ever-increasing amounts of data. ITS transfer authority resources helped us fund essential IT upgrade and modernization projects such as making our disability process fully electronic, developing robust and user-friendly online services, and opening our second data center. Without these IT investments we would not have kept pace with the recent increases in claims.

We did not have $600 million remaining unspent after the rescission. After the $275 million rescission, we had $276 million unspent in June 2011, of which all but $32 million was spent by the end of the fiscal year. While about $1 billion was transferred cumulatively to the ITS No-Year fund over the preceding decade (FY 2001 – 2011), we have continually spent against this funding source.

We have a number of IT initiatives critical for improving our efficiency and quality of service in progress. For example, we are:

- building a new case single processing system for State disability determination services instead of paying to maintain 54 different systems;
- building a national visitor intake system for our field offices;
- adding advanced systems capabilities in our hearing offices;
- converting our master files to DB2 databases;
- increasing the use of video for appeals and operational workloads;
- modernizing our earnings record software;
- building agile data exchange programs; and
- building additional online services that will utilize our new MySSA portal and authentication process.

11. **(From Mr. Becerra) One of the goals of the Federal Information Technology Reform Plan is to reduce reliance on agency data centers and transfer more functions to hosted servers ("the cloud"). Please describe the extent to which Social Security has moved services to the cloud, or chosen not to, and why. What are the risks and advantages for Social Security of moving to the cloud? Could Social Security generate short or long-term cost savings or performance improvements by moving some services to the cloud?**

    Please see Attachment 2, our Cloud First Plan, which contains a comprehensive explanation of our how we plan to use cloud computing.

12. **By law, if Social Security has money left in its operating budget at the end of the year, the funds are transferred to a dedicated account which is used for information technology. The Fiscal Year 2011 appropriations acts rescinded $275 million from that account. How did that rescission affect Social Security's IT modernization efforts?**

    As we mentioned earlier, we factor our ITS carryover authority into our annual budget requests. With this authority, we have been able to reduce our annual budget request and maintain robust investments in technology to improve productivity and accuracy. The rescission reduced some of our planned IT work. As explained above, we used this ITS funding source in lieu of asking for additional funding. In our FY 2013 budget request, we did not plan to have prior year carryover available; therefore, our budget request for ITS is $182 million higher than our annual ITS funding in FY 2011.

    Our systems and electronic services are some of the best in Government and the private sector and we need appropriate funding to continue to ensure the security of our sensitive information, increase online services, and pursue technology to increase productivity and improve our accuracy. Inadequate funding could result in increased traffic on our 800 number and in our field offices, creating an increased demand and additional strain on our reduced direct service staff. Continued reductions in our overall funding will severely jeopardize our service to the public and threaten our ability to keep our technology environment operating smoothly.

Attachments:
Attachment 1 – Application Information Report
Attachment 2 – Cloud First Plan